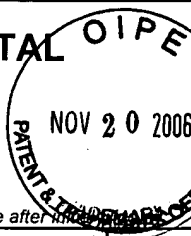


**TRANSMITTAL
FORM**

Application Number	10/627,345
Filing Date	July 25, 2003
First Named Inventor	George R. Borden, IV
Art Unit	2173
Examiner Name	Michael Roswell
Attorney Docket Number	7146.0153

(to be used for all correspondence after filing)

Total Number of Pages in This Submission

18

ENCLOSURES (check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR1:52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to TC (Appeal Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Post Card
Remarks The Commissioner is hereby authorized to charge any additional fees, or credit any overpayment, to Deposit Account No. 03-1550.		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm	Chernoff Vilhauer McClung & Stenzel, LLP 1600 ODS Tower 601 S.W. Second Avenue Portland, OR 97204		
Signature			
Printed Name	Kurt Rohlf		
Date	November 13, 2006	Reg. No.	54,405

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Signature			
Typed or printed name	Kurt Rohlf	Date	November 13, 2006

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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FEE TRANSMITTAL **for FY 2006**

☐ Applicant claims small entity status. See 37 CFR 1.27

AMOUNT OF PAYMENT (\$) 500

Complete if Known

Application Number	10/627,345
Filing Date	July 25, 2003
First Named Inventor	George R. Borden, IV
Examiner Name	Michael Roswell
Art Unit	2173
Attorney Docket No.	7146.0153

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify) : _____
☒ Deposit Account Deposit Account Number: 03-1550 Deposit Account Name: Chernoff Vilhauer McClung & Stenzel LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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☒ Charge any additional fee(s) or underpayments of fee(s) ☒ Credit any overpayments
 Under 37 CFR 1.16 and 1.17

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee(\$)	Fee(\$)	Small Entity Fee(\$)	Fee(\$)	Small Entity Fee(\$)	
Utility	300	150	500	250	200	100	_____
Design	200	100	100	50	130	65	_____
Plant	200	100	300	150	160	80	_____
Reissue	300	150	500	250	600	300	_____
Provisional	200	100	0	0	0	0	_____

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)
 Each independent claim over 3 (including Reissues)
 Multiple dependent claims

Small Entity
Fee (\$) **Fee (\$)**

50 25
 200 100
 360 180

Total Claims **Extra Claims** **Fee(\$)** **Fee Paid (\$)**

_____ -20 or HP= _____ x _____ = _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims **Extra Claims** **Fee(\$)** **Fee Paid (\$)**

_____ - 3 or HP= _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims

Fee (\$) **Fee Paid (\$)**

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).


Total Sheets **Extra Sheets** **Number of each additional 50 or fraction thereof** **Fee (\$)** **Fee Paid (\$)**
 _____ - 100 = _____ / 50 = _____ (round up to a whole number) x _____ = _____

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge) : Appellant's Brief

Fees Paid (\$)**\$500****SUBMITTED BY**

Signature		Registration No. (Attorney/Agent)	54,405	Telephone	503-227-5631
Name (Print/Type)	Kurt Rohlf			Date	November 13, 2006

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant : Borden, George R. Group Art Unit : 2173
Serial No. : 10/627,345 Examiner : Roswell, Michael
Filed : July 25, 2003 Attorney Docket : KLR/7146.0153
Customer No. : 55648 Confirmation No. : 2320
Title : AURAL USER INTERFACE

APPELLANT'S BRIEF

Chernoff, Vilhauer, McClung, and Stenzel, L.L.P.
1600 ODS Tower
601 SW Second Avenue
Portland, Oregon 97204

November 13, 2006

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

BACKGROUND

This brief is in furtherance of the Notice of Appeal, filed in this case on September 13, 2006.

The fees required under 37. C.F.R. § 41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

11/21/2006 AWONDAF1 00000091 10627345

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This brief comprises these subjects under the headings, and in the order, set forth below:

- I. Real Party in Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Claimed Subject Matter
- VI. Grounds for Rejection to be Reviewed on Appeal
- VII. Argument
- VIII. Conclusion
- IX. Claims Appendix
- X. Evidence Appendix
- XI. Related Proceedings Appendix

The final page of this brief bears the practitioner's signature.

REAL PARTY IN INTEREST

The real party in interest in this appeal is Sharp Laboratories of America, Inc., assignee of the captioned application.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN THE APPLICATION

There are 20 claims currently pending in the application.

B. STATUS OF ALL CLAIMS

Claims canceled:	1-10
Claims withdrawn:	None
Claims pending:	11-30
Claims allowed:	None
Claims objected to:	None
Claims rejected:	11-30

C. CLAIMS ON APPEAL

Claims 11-30 are on appeal.

A copy of the claims on appeal is set forth in the Claims Appendix to this Brief.

STATUS OF AMENDMENTS

No amendment was filed after final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter is generally directed to an aural user interface for interactively navigating through a collection of data. Specification at p. 1 line 5. More specifically, in a first embodiment as claimed in independent claim 11, the aural user interface may be organized into at least one hierarchical set of data and navigable from an arbitrary set of data within the hierarchical structure. *Id.* at p. 4 lines 10-24. The interface, as claimed in this embodiment, includes a first input for navigating upward through said hierarchical structure and

a second input for navigating downward through the hierarchical structure. *Id.* at p. 4 lines 21-23. Furthermore, a first aural signal is associated with the first input and has a first characteristic indicating to a user upward navigation through the hierarchical structure from an arbitrary data point, where the first characteristic is independent of the set of data from which upward navigation commences. *Id.* at p. 5 lines 25-27. A second aural signal is associated with the second input and has a second characteristic, audibly different than the first audio characteristic, indicating to a user downward navigation through the hierarchical structure from an arbitrary data point, where the second characteristic is also independent of the set of data from which downward navigation commences. *Id.* at p. 5 lines 25-27 and p. 6 lines 16-17. Also as claimed in independent claim 11, a frequency range is associated with the first aural signal that is dependent on the size of the data set comprising the hierarchical set of data, and a frequency range is associated with the second aural signal that is dependent on the size of the data set comprising the hierarchical set of data. *Id.* at p. 6 lines 19-27.

In a second embodiment as claimed in independent claim 21, the aural user interface is organized into a plurality of levels, each level including a set of data associated with that level. *Id.* at p. 4 line 24 to p. 5 line 5. The interface comprises a first input for navigating from a current level to a sublevel of that current level and a second input for navigating from a current sublevel of a level to the level. *Id.* A first aural signal is associated with the first input and has a first characteristic indicating, to a user, navigation from a current level to a sublevel of said the level, where the first characteristic is independent of the level from which navigation commences. *Id.* at p. 6 lines 10-12. A second aural signal is associated with the second input and has a second characteristic, audibly different than the first audio characteristic, and indicates to a user navigation from the sublevel of the current level to the current level, where the second characteristic is independent of the sublevel from which navigation commences. *Id.* at p. 6 lines

14-17. Furthermore, a frequency range is associated with the first aural signal that is dependent on the size of the data set comprising the respective level and a frequency range is associated with the second aural signal that is dependent on the size of the data set comprising the respective sublevel. *Id.* at p. 6 lines 19-27.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection presented for review are: (1) whether claims 11, 12, 15, 16, 19-22, 25, 26, 29, and 30 are unpatentable under 35 U.S.C. §102(a) as being obvious over the combination of Vallone et al., U. S. Patent No. 6,642,939 (hereinafter Vallone) in view of Peterson et al., U.S. Patent No. 5,652,714 (hereinafter Peterson), and IBM Research Disclosure Number 41878, cited in the Examiner's office action dated July 25, 2006 (hereinafter IBM-41878); (2) whether claims 13, 14, 23, and 24 are unpatentable under 35 U.S.C. §103(a) over the combination of Vallone in view of Petersen and IBM-41878, and in further view of Auflick et al., U.S. Patent No. 6,820,238 (hereinafter Auflick); and (3) whether claims 17, 18, 27, and 28 are unpatentable under 35 U.S.C. §103(a) over the combination of Vallone, Peterson, IBM-41878, and in further view of McKiel Jr., U.S. Patent No. 5,287,102.

ARGUMENT

REJECTIONS UNDER 35 U.S.C. §103(a) IN VIEW OF RESPECTIVE COMBINATIONS INVOLVING IBM-41878

Each of the Examiner's respective rejections of claims 11-30 are premised upon the Examiner's contention that IBM-41878 discloses the limitations of "a frequency range associated with said first aural signal that is dependent on the size of the data set comprising the hierarchical set of data" (claim 11) [alt: "... comprising the respective said level" (claim 21)] and "a

frequency range associated with said second aural signal that is dependent on the size of the data set comprising the hierarchical set of data” (claim 11) [alt: “. . . comprising the respective said sublevel”(claim 21)]. *See, e.g.* Office Action dated July 25, 2006 at p. 3 lines 12-19 (claims 11, 12, 15, 19-22, 25, 29, and 30); p. 7 line 9 to p. 8 line 10 (claims 13, 14, 23 and 24) ; p. 8 line 15- p. 9 line 3 (claims 16 and 26) and p. 9 lines 11-13 (claims 17, 18, 27, and 28).¹ This premise is incorrect.

Support for each of these limitations is found at p. p. 6 lines 19-27 of the specification, which states that, to “assist the user in determining the current location within a list, the “next item” aural cue may be provided with a variable frequency to permit the user to know their approximate location within the list. For example, a high pitched frequency may indicate that the user is toward the top of the list, while a low pitched frequency may indicate that the user is toward the bottom of the list. *In addition*, the frequency may give some indication of the *size* of the list. For example, a high pitched frequency may indicate that the list is relatively large, given that there . . . are other items associated with lower frequencies. With variable frequencies, an experienced user may achieve a high navigational efficiency.” (Emphasis added). Thus, the claimed limitation of frequency *ranges* respectively associated with different aural signals and “dependent on the size of the data set” being navigated, not only indicates the relative position within the data set being navigated, but also is also indicative of relative absolute size of the data set, as well. Such a feature is particularly important in the disclosed aspects of the claimed invention relating to telephone answering messages, audio playback devices, etc., where the user is navigating among discrete items in a list and where the user may generally wish for an

¹ In this portion of the Examiner’s explanation supporting the rejection, the Examiner’s reading of IBM-41878 is exactly the opposite of what it discloses. The Examiner contends that IBM-41878 fails to disclose the limitation of indicating to a user the relative position within a data set being navigated, and relies upon McKiel, Jr. to provide that supposedly missing limitation. In fact, IBM-41878 discloses exactly what the Examiner states that it does not, i.e. the relative position of a selected item within the hierarchical list, by making the *rate of change* at which the frequency of an audible signal varies when a user scrolls down a window dependent on the size of the window *relative* to the size of the data set. *See Applicant’s Brief, post* at p. 7.

indication, not only of the relative position of a certain selected item in the list, but how many items there are in the list.

With these limitations in mind, it is apparent that the cited reference, IBM-41878, fails to disclose this limitation. Instead, that reference merely discloses the feature of indicating the relative position of a selected item in the list, but fails to disclose indicating the actual size of the list itself, using the frequency range of the aural signals. *See* IBM-41878 (“The *rate of change* of frequency is governed by the *relative* size of the total content contained within the scroll area compared to the scroll view port, and the relative position within the area being scrolled.”)(emphasis added) For example, in the cited prior art, the frequency of the audible signal emitted when a user is scrolling over the midway (50%) point of the entire data set within the scroll area *is the same, irrespective of the size of the data set*, because the frequency merely indicates the *relative position* of the currently selected item. Although the presented claims are directed to this feature, they also are directed to the *additional* feature, not disclosed in the cited reference, of using the frequency range to give an indication of the size of the data set itself.

To provide a prima facie case to support a rejection under 35 U.S.C. § 103(a), the Examiner must show that the combination of references together disclose each feature of the claimed invention. Each of independent claims 11 and 21, from which all the remaining claims respectively depend, recites the limitation of “a frequency range . . . that is dependent on the size of the data set.” IBM-41878 fails to disclose this limitation because the frequency ranges disclosed in that reference are only indicative of the current relative position in a scrollable list, rather than the size of the list itself.

Therefore, each of claims 11-30 patentably distinguish over the cited prior art, and the Examiner’s respective rejections of these claims should be reversed.

CONCLUSION

The Examiner's respective rejections of claims 11-30 should be reversed, and the claims should be found patentable.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Kurt', followed by a long, flowing horizontal stroke.

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Attorney for Applicant
Telephone: (503) 227-5631

CLAIMS APPENDIX

1-10 (Canceled).

11. An aural user interface for interactively navigating through a collection of data organized into at least one hierarchical set of data and from an arbitrary set of data within said hierarchical structure, said interface comprising

- (a) a first input for navigating upward through said hierarchical structure;
- (b) a second input for navigating downward through said hierarchical structure;
- (c) a first aural signal associated with said first input having a first characteristic indicating to a user upward navigation through said hierarchical structure from an arbitrary data point, said first characteristic independent of the set of data from which upward navigation commences;
- (d) a second aural signal associated with said second input having a second characteristic audibly different than said first audio characteristic indicating to a user downward navigation through said hierarchical structure from said arbitrary data point, said second characteristic independent of the set of data from which downward navigation commences;
- (e) a frequency range associated with said first aural signal that is dependent on the size of the data set comprising the hierarchical set of data;
- (f) a frequency range associated with said second aural signal that is dependent on the size of the data set comprising the hierarchical set of data.

12 The aural user interface of claim 11 where said first and second inputs are respective buttons.

13. The aural interface of claim 11 where said first and second inputs are opposite sides of a rocker switch.

14. The aural interface of claim 13 where constant depression of a selective side of said rocker switch causes continuous, incremental navigation through said hierarchical structure in the respective direction associated with the depressed said side.

15. The aural user interface of claim 11 including a third aural signal indicating to a user that an outer boundary of said hierarchical structure has been reached.

16. The aural user interface of claim 11 where said first characteristic is identical to said second characteristic.

17. The aural user interface of claim 11 where each of said first and second aural signals have a location characteristic indicating to a user the relative position within said hierarchical structure of the selected set of data.

18. The aural user interface of claim 17 where said location characteristic is the frequency of said first and second characteristics, respectively.

19. The aural user interface of claim 11 wherein said collection of data is organized into a plurality of levels, each level including an associated hierarchical structure.

20. The aural user interface of claim 19 including a third aural signal indicating to a user navigation to a different level.

21. An aural user interface for interactively navigating through a collection of data organized into a plurality of levels, each said level including a set of data associated with a respective said level, said interface comprising:

- (a) a first input for navigating from a current level to a sublevel of said current level;
- (b) a second input for navigating from a current sublevel of a level to said level;
- (c) a first aural signal associated with said first input having a first characteristic indicating to a user navigation from a current level to a sublevel of said current level, said first characteristic independent of the level from which said navigation commences;

- (d) a second aural signal associated with said second input having a second characteristic audibly different than said first audio characteristic indicating to said user navigation from said sublevel of said current level to said current level, said second characteristic independent of the sublevel from which said navigation commences;

- (e) a frequency range associated with said first aural signal that is dependent on the size of the data set comprising the respective said level;

- (f) a frequency range associated with said second aural signal that is dependent on the size of the data set comprising the respective said sublevel.

22. The aural user interface of claim 21 where said first and second inputs are respective buttons.

23. The aural interface of claim 21 where said first and second inputs are opposite sides of a rocker switch.

24. The aural interface of claim 23 where constant depression of a selective side of said rocker switch causes continuous, incremental navigation through said plurality of levels in the respective direction associated with the depressed said side.

25. The aural user interface of claim 21 including a third aural signal indicating to a user that an outer boundary of said plurality of levels has been reached.

26. The aural user interface of claim 21 where said first characteristic is identical to said second characteristic.

27. The aural user interface of claim 21 where each of said first and second aural signals have a location characteristic indicating to a user the relative position within said plurality of levels.

28. The aural user interface of claim 27 where said location characteristic is the frequency of said first and second characteristics, respectively.

29. The aural user interface of claim 11 wherein each of said plurality of levels contains data organized into a respective hierarchical structure.

30. The aural user interface of claim 29 including a third and fourth aural signals indicating to a user upward and downward navigation, respectively, through the hierarchical structure associated with each said level.

EVIDENCE APPENDIX:

None.

RELATED PROCEEDINGS APPENDIX:

None.